

What is a Computer?

(By Swamy Associates)

Sir Herman Hollerith, the American inventor, whose tabulating machine transformed into the mighty Computer and whose Computing-Tabulating-Recording company became the cyber giant the IBM, would never have imagined that a legal firm would be writing an article to address the most-trivial-question on the planet "What is a Computer"... that too after a century!!!!

1. The advent of the Notification 2/2004 dated 8/1/04 by which the "Computers" are blessed with the reduced rate of duty of 8% adv, which has prompted us to address this kindergarten poser!. By the way, is this question kindergarten stuff???

Well. Now to the issue. What is a Computer?

2. Even though the abacus is the Adam of the Computer, today it is more than a calculating machine. Shall we generalize the term Computer as under?

" A Computer is a programmable machine, which is able to accept, process, store and retrieve data."

3. With this common man definition, we have tried to frame some possible questions as to decide whether they qualify to be a "Computer" to get the benefit of the reduced rate of duty. This is only an illustrative attempt and not an exhaustive one (Disclaimer!)

- a) Whether a calculator is one?
- b) Whether a laptop is one?
- c) Whether a Kiosk is one? (By the way, kiosk is a new generation information terminal hosted in various public utility centers like railway stations, hospitals, shopping malls etc.. It is a hi tech fabricated machine consisting of either a key board or touch screen monitor to enable the user to input the data, a Central processing Unit to process the information and a monitor to exhibit the results.)
- d) Whether the data terminals like the one we see at the Railway reservation Counters would merit? (Where the data terminal is with a keyboard, monitor and a temporary processing unit which is connected to the remote Main Frame Processing Unit)
- e) Whether the units like monitors, CPU or keyboards, separately, would qualify?
- f) Whether an apparatus or an equipment incorporating a Computer and performing a specific function (for example, A computer aided machine tool or a navigational instrument in an aircraft)?

4. Now to the classification under Central Excise for the Computers. Even though there is no direct term "Computer" in the Central Excise Tariff (Why not, is a billion dollar question!), the Board's Circular No.454/20/99-Cx dated 12/4/99 comes to the rescue. In Para 2 of the said circular, it is stated that Computers are described as "Automatic Data Processing Machines" (hereafter ADPM) and are classified under chapter heading 8471 of the Central Excise Tariff.

5. Chapter heading 8471 reads as,

“Automatic data processing machines and units thereof: magnetic or optical readers, machines for transcribing data on to data media in coded form and machines for processing such data, not elsewhere specified or included”

6. As the crux of the issue is only about a Computer, which is ADPM, we shall confine to the same under 8471. Now to the chapter notes of Chapter 84. Chapter notes 5(a) to 5(e) defines the expression ADPM for the purposes of chapter heading 8471 as,

“5.(a) For the purposes of heading 84.71, the expression ‘automatic data processing machines’ means:

(i) Digital machines, capable of (1) storing the processing programme or programmes and at least the data immediately necessary for the execution of the programme; (2) being freely programmed in accordance with the requirements of the user; (3) performing arithmetical computations specified by the user; and (4) executing, without human intervention, a processing programme which requires them to modify their execution, by logical decision during the processing run;

(ii) Analogue machines capable of simulating mathematical models and comprising at least: analogue elements, control elements and programming elements;

(iii) Hybrid machines consisting of either a digital machine with analogue elements or an analogue machine with digital elements.

(b) Automatic data processing machines may be in the form of systems consisting of a variable number of separate units. Subject to paragraph (e) below, a unit is to be regarded as being a part of a complete system if it meets all of the following conditions:

(i) it is of a kind solely or principally used in an automatic data processing system;

(ii) it is connectable to the central processing unit either directly or through one or more other units; and

(iii) it is able to accept or deliver data in a form (codes or signals) which can be used by the system.

(c) Separately presented units of an automatic data processing machine are to be classified in heading No.84.71

(d) Printers, keyboards, X-Y co-ordinate input devices and disk storage units which satisfy the conditions of paragraphs (b) (ii) above, are in all cases to be classified as units of heading No.84.71

(e) Machines performing a specific function other than data processing and incorporating or working in conjunction with an automatic data

processing machine are to be classified in the headings appropriate to their respective functions or, failing that, in residual heading.

7. Now a delve into the Explanatory Notes of the Harmonized Commodity Description and Coding System (popularly known as HSN and the lexicon for classification). The relevant descriptions of an ADPM from the HSN are:

- a) Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such or, in some cases, serve in turn as data for other data processing operations.
- b) This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task. These machines mostly use electronic signals but may also use other technologies (e.g. pneumatic, fluidic or optical); some may use combinations of two or more of these technologies.
- c) They may be self-contained, all the elements required for data processing being combined in the same housing, or they may be in the form of systems consisting of a variable number of separate units.
- d) Such machines are described as digital, analogue or hybrid (analogue/digital), according to the method of processing the data.
- e) This heading excludes machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings.
- f) The digital data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5 (A) (a) to this Chapter. That is to say, they must be capable of:
 - (1) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
 - (2) Being freely programmed in accordance with the requirements of the user;
 - (3) Performing arithmetical computations specified by the user;
 - (4) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.
- g) Machines, which operate only on fixed programs, that is programs which cannot be modified by the user, are **excluded** even though the user may be able to choose between a number of such fixed programs.
- h) Digital data processing machines usually consist of a number of separately housed interconnected units. Then they form a "system". A "system" means automatic data processing machines, whose units satisfy the conditions laid down in Note 5(b) to Chapter 84 and which comprise at least a central processing unit, one input unit (e.g. a key board or scanner), and one out put unit (e.g. a visual display unit or a printer).

- i) A complete digital data processing system must comprise, at least:
 - (1) **A central processing unit** which generally incorporates the main storage, the arithmetical and logical elements and the control elements; in some cases, however, these elements may be in the form of separate units.
 - (2) An **input unit**, which receives input data and converts them into signals, which can be processed by the machine.
 - (3) An **output unit** which converts the signals provided by the machine into an intelligible form (printed text, graphs, displays, etc.) or into coded data for further use (processing, control, etc.)
 - j) Two of these units (input and output units, for example) may be combined in one single unit.
 - k) These systems may include remote input or output units in the form of data terminals.
8. From the above, we could arrive at the following derivations for the questions framed by us above as,
1. Despite the fact that a calculator has an input mode (Keypad), a processor to do the arithmetical calculations and an output mode (Display screen), it shall not get classified as a ADPM because of the fact that, it is a machine which operates only on fixed programs and which cannot be modified by the user (Para 7(g) of this article). They are comfortably and specifically classified under chapter heading 8470 of the Tariff.
 2. A lap top is a perfect sitter as it comprehensively satisfy all the parameters.
 3. A Kiosk also would merit classification as a ADPM (thus as a Computer) as it satisfies the conditions set out.
 4. The data terminals are "cat on the wall" category. Even though they appear to satisfy all the ingredients, the department may always allege that the terminals do not have the essential piece of a Central processing unit. The data terminals' temporary processing unit which retrieves the required data from the remote Main Frame may be distinguished from the CPU and be treated only as Hub. But in our opinion, they are duly entitled (Para 7(k) of this article).
 5. As the exemption is only for the Computers and not for the parts of Computer, the units of a computer, separately, will not get classified as ADPM and will not get the benefit of the reduced rate.
 6. Now to the instruments incorporating a Computer and performing a specific function. From the exclusion provided in the Chapter notes and the HSN (Para 6(e) & 7(e) of this article), it appears that they are not classified as

ADPM but are classified in the headings appropriate to their respective functions.

9. But it is not that simple as it is said. Kind reference is drawn to the judgment of the Hon'ble Tribunal in the case of **BPL MOBILE COMMUNICATIONS LTD. Vs COMMR. OF CUS. ACC, MUMBAI** as reported in **2000 (126) E.L.T. 986** wherein the Hon'ble Tribunal has observed as,

"6. However, that does not detract from the very fact that the data processing machines which are incorporated, in or used with such machines, are by themselves data processing machines. If they were separately imported, for example, such data processing machines would be classifiable as data processing machines and not with reference to the machines in which they may be incorporated on in conjunction with they may work. The software for such machines would be in any case be software for data processing machines. We must also note that the tariff nowhere provides for classification of 'computers'. The terms it uses are data processing machines and equipment therefor. In construing the meaning of the term in notification which is not found in the tariff, we must apply its meaning as generally understood. That is what we have done."

This decision of the Tribunal has subsequently upheld by the Apex court as reported in **2002(146) ELT A215 (SC)**.

10. With all the above, at the end of this piece, we are left with the most-trivial-question on the planet, "What is a Computer?"

Tailpiece: It is said, " Information is wealth. Processed information is managed wealth." If so, is Computer a wealth manager?